Relationship between Self Efficacy and Anxiety While Conducting Research at Postgraduate Level

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ARTICLE INFO	ABSTRACT
	The purpose of this study was to investigate the relationship between students' self-efficacy and anxiety while conducting research. The population of this study was postgraduate research students in Women University, Bagh, Pakistan. A sample of 100 students was selected using random sampling technique. A questionnaire was developed to take the data from sample of the study. The validity and reliability were estimated based on opinions of a panel of experts and Cronbach's alpha coefficient, respectively. The data was analyzed using descriptive statistics and correlation. Results revealed that the respondents had a moderate level of research anxiety and high level of research self-efficacy. Overall, Women University students tend that there was a positive significant relationship between self-efficacy and self anxiety while conducting research.

Introduction

A research is a step towards knowledge and reality. It plays a key role for novelty and invention. Human being can overcome the problems of life by applying different outcomes of research. The psychological problems like anxiety and self-efficacy are also discussed through research to reach some suitable solutions of these issues. Cassie (2012) in his research has discussed the interaction between anxiety, students' success and self efficacy for students.

Anxiety affects badly on the students performance and self efficacy. The co-operation between teachers, students and parents reduces the anxiety level. A teacher helps the students in all educational activities for reduction of anxiety. Problem based teaching method increases the learning level by reducing anxiety of students. Anxiety and poor learning are reciprocal to each other. Mulikin et al. (2007) defines research as the inner ability one has in his or her abilities to perform research related activities. Research study is a judgment about one's ability to perform particular research (Bieschke, 2006).

Self efficacy is the confidence of a learner to make good behavior. It makes motivation, learning self regulation and achievement (Pajareses & Urdan, 2006). It can also be defined as the level of work of a learner fully grasps to perform a task. Bandura (2004) describes following four sources of self efficacy:

1. Mastery experiences: Those are very effective sources. These are the experience to control the resistances.
2. Vicarious experiences: Social models are the sources of these experiences. One can see other people while struggling hard for their targets. They learn from each other. They transmit skill and learning with each other.
3. Social persuasions: It is a kind of motivation which can be done through talks and discussions. Positive discussions increase self efficacy and negative talks decrease self efficacy.
4. Somatic and emotional state: Self efficacy belief is affected by several aspect of an individual personality such as emotions, stress and depression.

These four sources of self efficacy influence the working behavior of human being in day to day life.

Research self efficacy constructs attitude towards research. It is a level or standard of the students and his confidence to do the given task. It influences the students about choices of behavior, efforts and consequences. Steur, Jansen, and Hofman (2012) suggest that research self efficacy is an indicator of scholarship. It is a scholarly stance towards the world. At the level of graduates most of the students are reluctant towards research activity (Papanastasiou , 2005). The reason of their unwillingness is statistics and mathematics (Adams & Holcomb, 1986)(Wise ,1985). Further the negative behaviour have few reason as work out difficulty of research finding relevant with topic, further such type of hectic work gives birth to depression and stress and they scarifies their grades in the course. But most of the researches illustrated the positive attitude towards an academic subject higher the possibility for them to perform well academically.

An American psychologist Albert Bandura says that research self efficacy is mostly associated with the strong sense of efficacy enhances human accomplishment and the personal well being in many ways. Different tasks can be done without any threat approaching capabilities and assurance. To achieve the goals, we should maintain strong commitment about that matter. After failure need is to heighten and sustain the efforts. They quickly recover their sense of efficacy. As they think that their knowledge and skills are also need to improve. They believe that they have self confidence to complete with hardships and troubles. They got the high level of self belief. Apart from this people who do not believe in self power, who have doubt about their abilities, cannot compete with their rivals. They have weak commitment for their targets. They became frighten and got some kind of fear when they face some kind of resistance in their life.

From the perspective of the behavior science Wolman (1989) denotes anxiety as "a feeling of one's own weakness

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and inability to cope with real or imaginary threat." It is a psychological and physical reaction of one's to his feeling to tension (Spielberger, 1983). It is a state of un-comfortable behavior of mind due to some problem students feel anxiety about their tasks. It is not always negative some are motivated due to anxiety. Anxiety and workloads given to student are problems to the research work. The students who find the research work difficult will suffer from greater anxiety and hence they get lower grade. It can be fearful but its some levels are normal. It is a fault when it affects personal's daily life, work or social behavior.

If a person is feeling tense up to 6 months then he will get generalized Anxiety disorder. According to Morrison (1995) a person may more anxiety disorder if they have symptoms of different anxiety disorder categories Published by the American psychiatric Association. Panic disorder social phobia and post traumatic stress are examples of anxiety. Anxiety becomes a symptom in depression. It is not considered a serious problem before 20 years. It is now considered as disability in the population especially when it is in the general population of adults' worries about their future. It is found everywhere (Velting et.al, 2004). To screen for diagnosis anxiety and mood disorder is not a part of primary care (Wren, Scholle, Heo, & Comer, 2003). Researchers are trying to solve the problems due to anxiety.

Anxiety is a reaction to threatening situation. It also creates unpleasant physiological symptoms (Feist, 1990). Nervousness and fear are different problems caused by anxiety. Fear of something is a natural feeling. On the other hand nervousness consists of many different and connected parts of body which cannot be treated easily.

Anxiety means more swear emotions. It creates discouraging attitude. Its base is some reason consists of more danger. Anxiety is result of some threatening situation in which a person feel unstable and doubt his ability to fight with it (Gall, 2006). It is condition of instability with emotional and mental changes when a person faces the difficult situation to boring and laziness in research work. He has not fully belief on his abilities. He will remain restless while doing research.

It is considered that knowledge and self efficacy will result in success. The levels of anxiety are examined as per student's age, gender, occupation and education. It is concluded that level of anxiety is very low of the post graduate student. But there is no difference between them as per age, gender and education in research work. Research which is handled by Buyukozturk (1997) concluded that

student's production was not positive. It is resulted that only knowledge and self efficacy confidence can make success.

The students who were assisted found less nervousness than the students who were not joined in the researches. The trainees students nervousness and thinking towards scientific research planned and have firm decision. The level of nervousness is average in amount (Aydm , Adiguzel & Topal 2015). The level of nervousness of the students was higher who did not take part in large quantity of numerical data.

Methodology

The research was conducted to "explore and analyze the relationship between self efficacy and anxiety in Women University at District Bagh. The nature of research was descriptive; survey was conducted by using Questionnaire as tool of research. The methodology of study covers the aspects like Population, sample, data collection and statistical methods used for analysis of data. This research was conducted to "explore and analyze the relationship between research self-efficacy and anxiety in research in Women University at postgraduate level at Women University in District Bagh Pakistan. The nature of research was descriptive. The survey was conducted by using Questionnaire as tool of research.

The sample of the study to present survey included M. Phil Scholars from the faculty of social sciences and faculty of sciences at Women University Bagh (AJK) Pakistan. The random sampling technique was used for selection of sample.

An alphabetical list of all the students of Women University at postgraduate level was prepared and 100 students were selected. The process provided the equal opportunity/probability of selection of every candidate. Out of 300 research students, 100 students were taken randomly as sample.

The instrument was developed on five point rating scale. Strongly Agree SA=5, Agree A=4, Uncertain UNC=3, Disagree DA=2, Strongly Disagree SDA=1.

The instrument was presented before the penal of experts who have command on research and instrumentation. Their opinions were incorporated and questions were refined by incorporating observations of experts. This ensured the validity of instruments. After this the reliability was found by pilot testing, the Cronbach's alpha coefficient value was found 0.91 which shows high reliability.

The data was personally collected and analyzed with the help of SPSS-23 by the researchers.

Results

Table 1 summarizes descriptive statistics for the items

Table 1. Self-Efficacy of the Students while Conducting Research.

S.No	Statements	N	Mean	Std. Deviation
1	The ability to review and write a balanced and comprehensive literature review.	100	4.10	.927
2	The ability to design and implement the best data analysis strategy for the study.	100	4.20	.829
3	The ability to use various technological advances effectively in carrying out research.	100	4.09	.965
4	I am interested in learning research and understanding research related information	100	4.49	.798
5	The skills I have acquired in research will be helpful to me in the future.	100	4.42	.855
6	The ability to choose set of research questions and will test set of hypothesis.	100	4.28	.621
7	The ability to identify implications for future research	100	4.29	.756
8	The ability to interpret and understand statistical printouts.	100	4.21	.756

Table 2. Anxiety of the Students while Conducting Research.

S.No	Statements	N	Mean	Std. Deviation
1	I need to improve my research skills.	100	4.37	.677
2	I find it difficult to understand research concept and methods	100	3.72	1.16
3	When I conduct research, I fear that it is poor compared to others in my field.	100	3.67	1.33
4	When working on a research project, I experience anxiety.	100	3.86	1.16
5	I feel insecure concerning the analysis of research data.	100	3.71	1.23
6	When I conduct research, I worry about the possibility of using incorrect data analysis.	100	3.96	1.08
7	I often feel uncomfortable when discussing research methods.	100	3.65	1.41
8	Research makes me nervous.	100	3.60	1.36

regarding research self-efficacy scale used in the analysis, including numbers, mean and standard deviation of the items from students' point of views. The findings revealed that students are agreed with all statements of research self-efficacy. When analyzing the items of research self-efficacy in the questionnaire, it was found out that "I am interested in learning research and understanding research related information" (Mean=4.49, SD=.79) was rated somewhat higher than the other items. It means that students are more anxious to learn research related information. The ability to use various technological advances effectively in carrying out research have the lowest mean value in this aspect i.e., self-efficacy of students. All the respondents were agreed with ability to review and write a literature review, design and implement data analysis, the ability to test hypothesis and ability to interpret and understand the statistical printouts. Overall the self-efficacy of students is very high while conducting research.

Table 2 shows the responses to 8 items contained in the research anxiety scale. The highest mean score was of "I need to improve my research skills" (Mean=4.37 SD=.68), it mean that all the respondents were in need of improvement in the techniques regarding research "When I conduct research, I worry about the possibility of using incorrect data analysis" (Mean=3.96, SD=1.08), all respondents were worried about the authencity of data, all respondents feels anxiety in understanding research concepts, research students felt anxiety when compared with the work of others, felt anxiety when working on research projects and all respondents were felt nervousness while doing research. Item 8, "Research makes me nervous", had the lowest mean score at 3.60 (SD=1.36), indicating a lack in confidence when writing the conclusions for a research study.

Table 3. Relationship between Students' Self-Efficacy and Self Anxiety during Research Process.

Item		Self-anxiety
Self-efficacy	Pearson Correlation	.477**
	Sig. (2-tailed)	.000
	N	100

Table 3 shows the relationship between research self efficacy and research self anxiety. Correlation is significant at the 0.01 level (2-tailed). r=.477 at p=.000. There is a positive relationship between self efficacy and self anxiety; it means that if one variable increases the other also increases.

Discussion

The aim of this study was to investigate the relationship between self efficacy and anxiety of the students of Women University of AJ&K Bagh, Pakistan. This study found that there was a positive and statistically significant correlation between self-efficacy and anxiety while conducting research. That is, student with higher scores of self-efficacy may be more efficient in terms of research work. Many post graduate students have concerns about learning research concepts. By eliciting feedback from postgraduate students about which aspects of the research process create various levels of anxiety, a picture may emerge which helps explain why so many students fail to complete the thesis or dissertation. Furthermore, why anxiety originates and how it is being propagated would provide pertinent information for administrators to better prepare and support postgraduate students in the area of research. The results of this research will help universities to prepare postgraduate students for better understanding their attitudes to enable them to increase the self-efficacy of students by improving the quality of their research preparation.

It means that students who are more confident in their ability to perform during the thesis or research work are less anxious and more confident students. It was also found that there was a positive and significant relationship between students' attitudes toward research with their self-efficacy. This indicates that students with more positive attitudes toward research are more confident in their ability to conduct research. Finally, postgraduates students reported higher level of self-efficacy and moderate level of anxiety.

Recommendations

On the basis of findings and conclusion of this study the following recommendations were made.

1. The guidance and support should be given by university supervisor.
2. It is recommended that research training begin early in the graduate program, exposing students to different research methodologies that provide students not only with technical skills but also interest in research by engaging the students in the research.
3. It is recommended that more elements of best practice needs to be incorporated into supervision about research and into the practice of research in courses to encourage transfer of knowledge to their everyday life activities.
4. The anxiety of postgraduate students of Women University of AJ&K Bagh should be minimize by the administration of university.

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